# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,954	08/18/2006	Takeshi Uemura	2006_1383A	2110
	7590 11/14/2007 I, LIND & PONACK L.L.F	EXAMINER		
2033 K. STREET, NW SUITE 800 WASHINGTON, DC 20006			DAVIS, OCTAVIA L	
			ART UNIT	PAPER NUMBER
	,	•	2855	
•			MAIL DATE	DELIVERY MODE
			11/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

¥	
---	--

	Application No.	Applicant(s)				
	10/589,954	UEMURA ET AL.				
Office Action Summary	Examiner	Art Unit				
	Octavia Davis	2855				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on	· _•					
2a) This action is <b>FINAL</b> . 2b) ☑ This	action is non-final.	,				
3) Since this application is in condition for allowar	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.				
Disposition of Claims						
4)  Claim(s) 10-18 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5)  Claim(s) is/are allowed.  6)  Claim(s) 10-18 is/are rejected.  7)  Claim(s) is/are objected to.  8)  Claim(s) are subject to restriction and/or election requirement.						
Application Papers		<i>i</i>				
9) The specification is objected to by the Examine 10) The drawing(s) filed on 18 August 2006 is/are:  Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction of the oath or declaration is objected to by the Examine 11.	a) accepted or b) objected or b) objected or b) objected or b) objected or abeyance. See on is required if the drawing(s) is objected or by objected or b) o	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4)  Interview Summary Paper No(s)/Mail Da	ate				
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 8/18/06.	5)  Notice of Informal P 6)  Other:	atent Application				

#### **DETAILED ACTION**

Acknowledgment is made of applicant's preliminary amendment filed 8/18/06.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 10 and 15 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Terada et al (5,854,427).

Regarding claims 10, 15, 16 and 18, Terada et al disclose an angular velocity sensor comprising a sensor having a drive electrode(s) 7, 8, 11, 12 portion into which is inputted a drive signal, a monitor electrode(s) 9,10,13,14 portion that detects an oscillation frequency of the sensor and outputs the detected frequency as a monitor signal, a sense electrode portion 6 that outputs a sense signal which is generated due to an angular velocity applied to the sensor and synchronized with the monitor signal (See Col. 3, lines 1 - 13) and a control portion including a reducing means that removes, as a noise component(s), unwanted signal components of the sense signal (See Col. 5, lines 6 - 16).

Regarding claim 17, a monitor amplifier 21 amplifies the monitor signal and a sense amplifier 25 amplifies the sense signal, wherein the signals are equal (See Col. 4, lines 27 - 36).

10/589,954 Art Unit: 2855

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 11 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terada et al (5,854,427) in view of Nozoe et al (6,959,584).

Regarding claims 11 – 14, Terada et al disclose all of the limitations of these claims except a memory portion that includes a data input terminal of which changes from a conducting state to a non-conducting state, generating the correction signal based on the memory portion and the monitor signal and the correction portion including a ladder resistor and switch portion that adjusts a resistance value of the ladder resistor according to the data stored in memory. However, Nozoe et al disclose an angular velocity sensor comprising a ladder network resistor that is used as an adjuster 36a that adjusts a signal level by sending digital data to the resistor and optimum data that are stored in a memory (See Col. 17, lines 3 - 21), the memory portion including a data input terminals 24, 25 and switches 55, 56 that select the polarity of a driving signal supplied to the adjustor (See Col. 15, lines 17 – 21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Terada et al according to the teachings of Nozoe et al for the purpose of, advantageously obtaining a high accurate sensor in which the influence of the electrostatic

coupling capacitors is suppressed in a normal operating condition (See Nozoe et al, Col. 17, lines 10 - 14).

#### Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Akimoto et al (6,282,957) disclose an angular velocity sensor and diagnosis system for this sensor.

Iwaki et al (6,415,664) disclose an angular velocity sensor capable of preventing unnecessary oscillation.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Octavia Davis whose telephone number is 571-272-2176. The examiner can normally be reached on Mon through Thurs from 9 to 5. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system,

Application/Control Number:

Octawa Janio

10/589,954 Art Unit: 2855 Page 5

see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

OD/2855

11/12/07

EDWARD LEFKEWITZ SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800